

Table 5

1994 Cable Industry Revenue Sources
\$ million

Source	Revenue
Basic Cable Programming	\$15,164
Pay Revenue	\$4,344
Mini Pay	\$178
PPV/NVOD/VOD	\$484
Local Advertising	\$1,077
Home Shopping	\$127
Cable to Business (video)	\$262
<u>Miscellaneous</u>	<u>\$1,412</u>
Total	\$23,048

Source: Paul Kagan Associates, *Cable TV Investor*, May 31, 1995, pp.8-10.

Table 6
CABLE SYSTEMS'
PROGRAMMING EXPENDITURES:
1984-1994

Year	Expenditures (in millions)
1984	\$ 1,740.0
1985	1,859.0
1986	2,030.0
1987	2,289.0
1988	2,599.0
1989	2,918.0
1990	3,195.0
1991	3,463.0
1992	3,811.8
1993	4,000.0
1994	\$ 4,370.0

Source: Estimates of NCTA, based on Paul Kagan Associates, Inc. data and US Copyright Office data.

APPENDIX D

Concentration in the Market for Cable Television

A market is considered concentrated when one firm, or a small number of firms, has a sufficient share of the market to exercise power over it. The prevailing measure of market concentration, and the one used by the Department of Justice, is the Herfindahl-Hirschman Index, or HHI. The HHI, which is calculated by summing the squares of the market shares of the firms in the market, reflects the market share distribution among all firms in the market, giving proportionately greater weight to the market shares of the larger firms. The Department of Justice considers the possibility of market power when the HHI reaches 1,000.¹

Current data on the market share of cable television multiple system operators (MSOs) show a market that is unconcentrated. Applying the HHI analysis to the top cable television MSOs² results in an HHI of 725.41, below the Department of Justice's threshold of 1,000. Even if all announced acquisitions and transactions in the market are completed, the HHI value becomes only 855.37.

June 27, 1995

¹Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, April 1992, p. 28. The Guidelines divide the spectrum of market concentration into three regions: unconcentrated when the market's HHI is below 1,000; moderately concentrated when the HHI is between 1,000 and 1,800; and highly concentrated when the HHI is above 1,800. The maximum HHI level attainable is 10,000, which represents a pure monopoly situation (one firm with 100 percent of the market).

²In its Merger Guidelines, the Department of Justice states that although it is desirable to include all firms in the market in the HHI calculation, small fringe firms do not affect the HHI significantly and, therefore, are not critical. Only the top 19 firms were used here because beyond the 19 largest each smaller company captures less than one percent of the market and the square of a number less than one will have little impact on the value of the index.

**CABLE TELEVISION OPERATOR MARKET SHARES AND
CONCENTRATION AS MEASURED BY
THE HERFINDAHL-HIRSCHMAN INDEX (HHI)**

Company	Total Subscribers	Market Share	HHI Value
Tele-Communications, Inc. ¹	12,094,573	19.50%	380.13
Time Warner Cable ²	9,003,000	14.51	210.63
Comcast	3,346,000	5.39	29.09
Cox Cable Communications ³	3,196,000	5.15	26.54
Continental Cablevision ⁴	3,104,000	5.00	25.04
Cablevision Systems	2,679,000	4.32	18.68
Adelphia Communications	1,441,000	2.32	5.40
Cablevision Industries ⁵	1,412,000	2.28	5.18
Jones Intercable	1,340,000	2.16	4.67
Viacom ⁶	1,158,000	1.87	3.48
Sammons ⁷	1,090,000	1.76	3.09
Falcon Cable	1,061,000	1.71	2.93
Century Communications	958,000	1.54	2.38
Colony Communications ⁸	824,000	1.33	1.76
E.W. Scripps	752,000	1.21	1.47
Lenfest Communications ⁹	732,000	1.18	1.39
Charter Communications ¹⁰	710,000	1.14	1.31
KBLCOM ¹¹	699,000	1.13	1.27
Prime Cable	620,000	1.00	1.00
Total ¹²	46,219,573	74.51	725.41 ¹³

Source: Subscriber data from Paul Kagan Associates, Inc., *Cable TV Investor*, May 31, 1995, as of March 31, 1995. Tele-Communications, Inc. subscriber data from Tele-Communications, Inc. Total industry subscribers, 62,033,240, as of May 1995 from A.C. Nielsen.

June 27, 1995

Notes:

- ¹ Tele-Communications, Inc. subscriber data includes customers served by TCI and its consolidated subsidiaries and includes TCI's recent acquisition of TeleCable. This data does not reflect subscribers of cable companies in which TCI has an interest accounted for by the equity (TCI investment of 20 to 50 percent) or cost (TCI investment of less than 20 percent) methods. There are approximately 3,109,000 subscribers to cable companies that TCI accounts for by the equity or cost method. Economists Bresnahan and Salop, in their article, "Quantifying the Competitive Effects of Production Joint Ventures" (*International Journal of Industrial Organization* 4 (1986), pp. 166-175), developed modified HHI measures for situations where one of the entities is a joint venture. Using their methodology, it is possible to account for TCI's minority interests in these cable companies when computing an HHI. Based on equation seven of the Bresnahan and Salop paper, the modified HHI is computed by adding a term reflecting TCI's share of the jointly owned entities, TCI's share of subscribers as computed in the table, and the share of subscribers accounted for by these entities. Since TCI's interests accounted for by the equity or cost methods is 50 percent or less, it is conservative to use 50 percent as TCI's share in each of these entities. TCI's share of subscribers excluding these entities is 19.5 percent (see table). The 3.1 million subscribers accounted for by the equity or cost methods represent a 5 percent share. Multiplying these terms together produces an adjustment term of 48.75. Hence, if all of TCI's interests are accounted for using this method, the HHI would be 774.16. Since TCI's share in many of these entities is less than 50 percent, this HHI is, in fact, likely to be an overstatement.
- ² Includes recent acquisition of Newhouse. Time Warner has also announced that it will acquire Cablevision Industries (1,412,000 subscribers), KBLCOM (699,000 subscribers) and Summit Communications Group (168,000 subscribers). If these transactions are closed, Time Warner will have a total of 11,282,000 subscribers.
- ³ Includes recent acquisition of Times Mirror Cable.
- ⁴ Continental has announced that it will acquire Colony (824,000 subscribers). If this transaction is closed, Continental will have 3,928,000 subscribers.
- ⁵ Will be acquired by Time Warner Cable.
- ⁶ Viacom had agreed to merge with InterMedia Partners; the outcome is still pending.
- ⁷ Sammons' systems will be acquired by three other MSOs. 650,000 subscribers will be acquired by Marcus Cable; 293,000 subscribers will be acquired by Lenfest Communications; and, 147,000 subscribers will be acquired by TKR Cable.
- ⁸ Will be acquired by Continental Cablevision.
- ⁹ Lenfest will acquire 293,000 subscribers from Sammons. If this transaction is closed, Lenfest will have 1,025,000 subscribers.
- ¹⁰ Charter has announced that it will acquire Gaylord Broadcasting's 175,000 subscribers. If this transaction is closed, Charter will have 885,000 subscribers.
- ¹¹ Will be acquired by Time Warner Cable.

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- ¹² Only the top 19 cable television operators were used here because beyond the 19 largest each smaller company captures less than one percent of the market. In terms of the HHI value, the square of a market share less than one will have little impact on the total value of the index. In its Merger Guidelines, the Department of Justice states that although it is desirable to include all firms in the market in the HHI calculation, small fringe firms do not affect the HHI significantly and, therefore, are not critical.
- ¹³ If all of the acquisitions and transactions listed in the notes above are closed, the top nineteen companies would have a total market share of 75.76 percent and the HHI would be 855.37. If all of the above transactions are closed and all of TCI's interests are included (see Note 1 and including the acquisition by Lenfest and TKR of 440,000 subscribers from Sammons which TCI will account for by the equity method), then the HHI would be 911.14. Since TCI's interest in many of these entities is less than 50 percent, it is likely that this HHI is an overstatement.

APPENDIX E

Table 3
National Programming Services with Ownership Interests Held By Cable Operators

<i>Network</i>	<i>Began</i>
Action Pay Per View*	9/90
All News Channel	11/95
AMC (American Movie Classics)	10/84
BET: Black Entertainment Television	1/80
THE BOX (formerly The Jukebox Network)	12/85
Bravo	12/80
The Cartoon Network	10/92
Cable Health Club	10/93
Cable News Network (CNN)	6/80
Catalog 1	4/94
Cinemax	8/80
c/net: The Computer Network	4/95
CNNI (CNN International)	1/95 in US
Comedy Central	4/91
Courtroom Television Network (Court TV)	7/91
C-SPAN	3/79
C-SPAN 2	6/86
The Discovery Channel	6/85
E! Entertainment Television (formerly Movietime)	6/90 (Movietime: 7/87)
ENCORE	6/91
ENCORE Thematic Multiplex	1994
Faith & Values Channel (formerly VISN (Vision Interfaith Satellite Network)-ACTS)	6/84
The Family Channel	4/77
Flix	8/92
GEMS Television	4/93
The Golf Channel	1/95
HBO (Home Box Office)	11/72
Headline News	1/82
Home & Garden Television	12/94
Home Shopping Network	7/85
The Idea Channel	1/92
The Independent Film Channel	9/94
The International Channel	7/90
Jones Computer Network	9/94
KTVT	7/84
The Learning Channel	11/80
Mind Extension University: The Education Network	11/87
MTV: Music Television	8/81

Table 3 continued

Network	Began
MTV Latino	10/93
The Movie Channel	12/79
MuchMusic USA	7/94
Nickelodeon	4/79
NICK at Nite	7/85
Prime SportsChannel Networks	1/93
Product Information Network (PIN)	4/94
QVC	11/86
Q2	9/94
Request Television	11/85
Request 2	7/88
Request 3-5	9/93
Sci-Fi Channel	9/92
Sega Channel	12/4
Showtime	7/76
TBS	12/76
TNT (Turner Network Television)	10/88
Television Food Network (TVFN)	11/93
Turner Classic Movies	4/94
USA Network	4/80
VH1 (Video Hits One)	1/85
Viewers Choice	11/85
Viewers Choice: Continuous Hits 1,2,3	2/93
Viewers Choice: Hot Choice (formerly Viewers Choice 2)	6/86
Viva Television Network	1/93

Table 4
National Programming Services Without A Cable Operator Holding an Ownership Interest

Network	Began
Adam & Eve Channel	2/94
A&E Television Network (A&E)	2/84
America's Talking	7/94
Asian American Satellite TV	1/92
Cable Video Store	4/86
Canal de Noticias NBC	3/93
Canal Sur	8/91
Channel America Television Network	6/88
CineLatino	12/94 in US
Classic Arts Showcase	5/94
CMT: Country Music Television	2/83
CNBC	4/89
Consumer Resource Network	12/94
The Crime Channel	7/93
Deep Dish TV	1986
The Disney Channel	4/83
The Employment Channel	2/92
ESPN	9/79
ESPN2	10/93
EWTN: The Catholic Network	8/81
The Filipino Channel	4/94
FoxNet	7/91
fX	6/94
fXM: Movies from Fox	11/94
Galavisión	10/79
The Game Show Network	12/94
The History Channel	1/95
The Inspirational Network (INSP)	4/78
Kaleidoscope: America's Disability Network (incorporating the Silent Network)	6/90 (ADN)4/84 (TSN)
KTLA	3/88
Jewish Television Network	1981
Lifetime Television	2/84
MOR Music TV	8/92
NASA Television	1980
National Access Television	3/94
NET - Political NewsTalk Network (formerly National Empowerment Television)	12/93
Network One	12/93
NewsTalk Television (formerly The Talk Channel)	10/94
Newsworld International	9/94
The '90s Channel	11/89
Nostalgia Television	2/85

Table 4 Continued

Network	Began
Playboy TV	11/82
SCOLA	8/87
SingleVision	6/94
Spice	5/89
Telemundo	1/87
TNN: The Nashville Network	3/83
The Travel Channel	2/87
Trinity Broadcasting Network	5/73
Trio	9/94
TV Asia	4/93
TV JAPAN	7/91 *
U Network	10/89
Univision	9/61
ValueVision	10/91
Via TV Network	8/93
Video Catalog Channel	10/91
The Weather Channel	5/82
WGN	11/78
Worship	9/92
WPIX	5/84
WSBK	2/88
WWOR	4/79
Z Music	3/93

Table 5
Announced National Launches of Programming Services for Cable Distribution

Programming Services Without a Cable Operator Holding an Ownership Interest

Network

Action America
American Independent Network
American West Network
America's Health Network
Art & Craft Network
Arts & Antiques Network
The Auto Channel
Automotive Television Network/ATN
Benefit Network
Black Shopping Network
Booknet
Career & Education Opportunity Network
Catalouge TV
The CEO Channel
Channel 500
Children's Cable Network
CHOP TV
Classic Arts Showcase
Classic Music Channel
Collectors Channel
Conservative Television Network
daVinci Time & Space
The Ecology Channel (formerly the ECO Channel)
The Enrichment Channel
Entertainment Prosperity Insight Channel
FAD TV (Fashion & Design Television)
Fashion & Style Network
Fitness Interactive (formerly FXTV Fitness and Exercise Television)
Gaming Entertainment Television
Global Entertainment Television
Global Village Network
Golden American Network
The Gospel Network
The Health Channel
Hip-Hop Television
Hobby Craft Network
Horizons Cable Network
The Jackpot Channel
Las Vegas Television Network
The Lottery Channel
The Love Network
MBC Movie Network
Merchandise Entertainment Television

Table 5 Continued

National & International Singles Network
New Science Network
ORB TV
Ovation
Parent Television
Parenting Satellite Television Network
The Pet Television Network
Popcorn Channel
Premiere Horse Network
Prime Life Network
Real Estate TV Network
Recovery Net: The Wellness
Channel
The Seminar Channel
Sewing and Needle Arts Network
The Success Channel
Talk TV Network
The Technology Channel
Telecompras Shopping Network
TRAX Television Network
TV5
Women's Sports Network (NY)
Unnamed service

Programming Services with Ownership Interests held by Cable Operators***Network***

Animal Planet
Applause Networks
BET on Jazz
Classic Sports Network
The International Channel
Multiplex
Jones Health Network;
Jones Language Network
Living
Outdoor Life Channel
The Parents Channel
Planet Central TV
Quark!
Romance Classics
The Singles Network
Sundance Film Channel
TCI/Microsoft Channel
Television Shopping Mall
TV Macy's
Women's Sports Network (TX)
World African Network

Table 7**Vertical Connection Between Major Programming Services and Cable System Operators**

Programming Network	Subscribers (millions)	MSO with Ownership Interest in Network	Launch Date
ESPN	64.9	None	Sep-79
CNN	64.7	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)	Jun-80
TBS	64.4	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)	Dec-76
TNN (The Nashville Network)	63.6	None	Mar-83
USA Network	63.0	Viacom 50%	Apr-80
Discovery	63.0	TCI 49.2%, Cox 24.6%, Newhouse 24.6%	Jun-85
TNT	63.0	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)	Oct-88
C-SPAN	61.7	1/	Mar-79
The Family Channel	61.4	Liberty Media/TCI 18.5%	Apr-77
Arts & Entertainment	60.0	None	Feb-84
MTV	59.4	Viacom 100%	Aug-81
Lifetime	59.0	None	Feb-84
Nickelodeon/ Nick at Nite	59.0	Viacom 100%	Apr-79
Headline News	56.8	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)	Jan-82
The Weather Channel	55.7	None	May-82
AMC (American Movie Channel)	54.0	Cablevision 75%	Oct-84
CNBC	52.0	None	Apr-89
QVC	50.5	Comcast 57.45%, TCI 42.55%	Nov-86

Table 7 continued

VH-1	50.2	Viacom 100%	Jan-85
BET	40.8	TCI 18.2%, Time Warner 15%	Jan-80
WGN	38.8	None	Nov-78
Prevue Channel	36.8	None	Jan-88
C-SPAN II	34.1	1/	Jun-86
Comedy Central	30.1	Time Warner 50%, Viacom 50%	Apr-91
The Learning Channel	29.7	TCI 49.2%, Newhouse 24.6%, Cox 24.6%	Nov-80

1/Cable affiliates provide 95% of funding but have no ownership or program control interests.

Source: Top 25 networks, NCTA, *Cable Television Developments*, Spring 1995, and Paul Kagan Associates, *Cable TV Programming*, May 22, 1995, p. 12., various annual reports.

Table 8**Vertical Integration: Top Fifteen Programming Services (By Primetime Rating)**

Rank	Service	Launch	MSO with Ownership Interest
1	USA Network	April-80	Viacom 50%
2	TBS	Dec-76	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)
3	Nickelodeon Nick at Nite	Apr-79	Viacom 100%
4	ESPN	Sep-79	None
5	Lifetime	Feb-84	None
6	CNN	Jun-80	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)
7	Discovery	Jun-85	TCI 49.2%, Cox 24.6%, Newhouse 24.6%
8	Arts & Entertainment	Feb-84	None
9	TNN	Mar-83	None
10	The Family Channel	Apr-77	Liberty Media/TCI 18.5%
11	The Cartoon Network	Oct-92	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)
12	TNT	Oct-88	Time Warner 19.6%, TCI 23.3%, other cable companies have an ownership interest in Turner (each less than 5%)
13	Sci-Fi	Sep-92	Viacom 50%
14	BET	Nov-78	TCI 21.4%, Time Warner 17.7%
15	The Learning Channel	Nov-80	TCI 49%, Cox 24.6%, Newhouse 24.6%